

REMARKS

Favorable reconsideration and allowance of this application are requested in view of the comments below.

Original claims 1-6 have attracted rejections based principally on WO 97/00766 ("WO '766 publication"). Specifically, claims 1 and 5-6 attracted a rejection under 35 USC §102(b) as allegedly being anticipated by the WO '766 publication, while remaining claims 2-4 attracted a rejection under 35 USC §103(a) as allegedly obvious over the WO '766 publication in view of Li et al (USP 4,953,234). As will become evident from the following discussion, neither the WO '766 publication nor Li et al is appropriate as a reference against the presently claimed invention.

Applicants note that the present invention is novel in several respects. For example, the present invention is novel in that improvements in the specific energy absorption (SEA) at elevated temperatures (e.g., 80⁰C) is achieved by employing a plastic matrix material having a modulus of at least 3 MPa and compressing the stack of monolayers at a pressure of more than 25 MPa and a temperature between 125 and 150⁰C.

The inventions as defined by independent claims 1 and 5 are not anticipated by the WO '766 publication. Specifically, the WO '766 publication merely exemplifies the use of KRATON® styrene-isoprene-styrene triblock copolymer as the matrix material. However, as noted on page 7, lines 21-24, the modulus of KRATON® copolymer as matrix material is only 1.4 MPa – *not* at least 3 MPa as required by independent claim 1. Moreover, the WO '766 publication does not teach the skilled person that the stack must be compressed at a pressure of more than 25 MPA and at a temperature between 125 and 150⁰C in order to achieve improved SEA at elevated temperatures.

With respect to independent claim 5, it will be noted that the matrix material is required to be polyurethane which has a modulus of at least 3 MPa. (See the Examples wherein the polyurethane employed has a modulus of 6 MPa.)

Consequently, claims 1 and 5-6 are not anticipated by the WO '766 publication.

Nor does Li et al render obvious the present invention when combined with the WO '766 publication. In this regard, like the WO '766 publication, Li et al discloses the use of KRATON® copolymer as matrix material. Again, KRATON® copolymer does *not* have a modulus of *at least 3 MPa* as required by the pending claims herein. Nor does Li et al teach towards the use of plastic material having a modulus of at least 3 MPa. Li et al does not even relate to the issue of improving ballistic performance at elevated temperatures (e.g., 80°C). Thus, Li et al would not lead the ordinarily skilled person to the presently claimed invention in view of the WO '766 publication. Specifically, even if the WO '766 publication and Li et al were combined, the present invention would not result.

The Examiner is again invited to review the results of the Examples and Comparative Examples in the originally filed specification. In this regard, the data show that unexpected anti-ballistic performance at elevated temperature (e.g., 80°C) ensues for products within the scope of the present invention which is far superior to comparable products which employ the prior art KRATON® copolymer as a matrix material and/or employ a compression pressure of less than 25 MPa and a compression temperature of 125°C. (Please compare in this regard the data of Examples I-X to the data of Comparative Examples A-D in Table 1 on page 8 of the originally filed specification.

Hence, the present invention selectively achieves improved SEA properties at elevated temperatures by use of a plastic matrix material having a modulus of at least 3

JACOBS et al
Serial No. 10/532,807
July 6, 2006

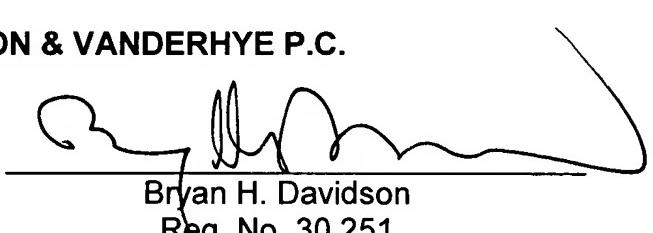
MPa and by compressing the stack of monolayers at a pressure of more than 25 MPa and a temperature between 125 and 150°c.

For the reasons noted above, applicants suggest that the rejections advanced against pending claims 1-6 under 35 USC §§102(b) and 103(a) in the subject Official Action should be withdrawn. Such favorable action is therefore solicited.

Respectfully submitted,

NIXON & VANDERHYE P.C.

By:


Bryan H. Davidson
Reg. No. 30,251

BHD:bcf
901 North Glebe Road, 11th Floor
Arlington, VA 22203-1808
Telephone: (703) 816-4000
Facsimile: (703) 816-4100